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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/848,246	05/03/2001	Akira Ikushima	ADACHI P163USP2	6256
20210	7590	08/06/2004	EXAMINER	
DAVIS & BUJOLD, P.L.L.C. FOURTH FLOOR 500 N. COMMERCIAL STREET MANCHESTER, NH 03101-1151			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 08/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/848,246	<b>Applicant(s)</b> IKUSHIMA ET AL.	
	<b>Examiner</b> John Hoffmann	<b>Art Unit</b> 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 and 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/15/04 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

From **MPEP 2173.05(h)**:

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925).

Presently, claims 31 and 26 ("one of prior to and after applying") each have a group which is very similar to the above accepted form, but there is no indication that the

group is "consisting of" the members. Therefore it is impossible for anyone to tell if applicant's group is open or closed to additional members - and thus the claim presents uncertainty or ambiguity with respect to the question of scope of the claim. If the above "acceptable form" is not desirable for Applicant, Examiner can be telephoned for other expressions.

Claim 30 is not understood as to what is meant by a "fluorine clad layer". Fluorine is a gas, it can't be a clad material. Or does the claim require that the core has fluorine-containing clad layer.

Claims 27-31 all state "further comprising the step". There is no antecedent basis for "the step". Alternatively, if there is antecedent basis for "the step" then it is not understood what is meant by "further" – because if the previous claims already provide for the step, then it is not a "further" step. Actually it would be an improper double inclusion of the same step.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 27-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 27 calls for a "further

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, and are rejected under 35 U.S.C. 103(a) as being unpatentable over DiVita 4028080 in view of Boniort 5247147.

See DiVita, col 2, lines 39-50 disclose the invention as claimed, i.e. the UV exposure and the use of heat are disclosed. However, there is no disclosure of residual heat, or any defect creation. Since DiVita does what Applicant does, one would reasonably expect the same results that Applicant got. If Applicant argues that DiVita would not get the same result that Applicant achieved, the burden would be on Applicant to demonstrate why one would not expect to get the same result. The fiber as created is a heated fiber.

Although, DiVita has the UV treatment during the formation of the fiber, it is possible that the fiber has cooled down to room temperature (and thus contains no residual heat) . Boniort teaches that when using a process requiring a high-temperature, one can place the process close to the draw furnace - and thus use the fiber at an elevated temperature: see col. 1, lines 50-60 and col. 2, lines 51-58. It would have been obvious to do the DiVita treatment very close to the draw furnace, so as to

use the elevated temperature of the fiber - so that one would not have to spend time reheating the fiber.

The "optionally" and "if necessary" limitations are not required by the claim, so such will not be further addressed in this rejection

As to the intention of: "to purposefully cause multiple structural defects": A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Presently, the intention does not result in any manipulative difference.

Claim 25 is clearly met.

Claim 26: see col. 2, line 26: 1849 angstroms = 184.9 nm. It is further noted that the intensity of light generally varies inversely with the square of the distance (e.g. sunlight on the earth is much more intense than sunlight on Pluto.) Thus the DiVita intensity would vary depending upon where the intensity is measured. The claim refers to 'an intensity' thus the claim is not limited to any particular intensity that occurs in the process. It would have been obvious to use routine experimentation to determine the intensity of light to use. Further, such would depend on the draw rate. A fast draw rate would require a higher intensity, as compared to a fiber with a slow draw rate. The total

energy is much more important than the rate at which the energy impinges the glass.

As to the temperature: DiVita teaches 1000 C.

Claim 27 is clearly met.

Claims 28 and 32: A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Claim 28 has the intention of preventing deterioration – but no specific manipulative difference is indicated by the intention. It is noted that the claim does not actually require the prevention of deterioration – nor does it specify any degree of prevention. It is noted, as an extreme case, Applicant's treatment would not prevent the damage caused by a nuclear explosion.

Claim 29: it is deemed that the reduction is sufficiently reduced for the DiVita purpose – in that it doesn't result in a non-working fiber.

Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Di Vita and Boniort as applied to claim 26 above, and further in view of Kyoto 5221309.

Kyoto teaches to have fluorine in the cladding so as to allow easy propagation of light in the core (among other things) Col. 1, line 21 to col. 2, line 31. It would have

been obvious to improve the DiVita fiber by having fluorine in the cladding, for the reasons of DiVita.

### ***Response to Arguments***

Applicant's arguments filed 15 July 2004 have been fully considered but they are not persuasive.

It is argued that the wavelength would dictate whether defects will occur. This is true, but not very relevant because DiVita uses wavelengths that are covered by Applicant's specification and claims. If Applicant has any evidence that any portion of the disclosed wavelengths do not actually result in defect, then such should be submitted. Such may be used to make an enablement rejection. The top of page 8 of the specification refers to the range of 50-300 nm. Both of DiVita's wavelengths (col. 2, lines 26-27 read on this range.

It is further argued that the amount of added heat is important. The relevance of this is not understood, because the present claims require the heat be residual heat – not added heat.

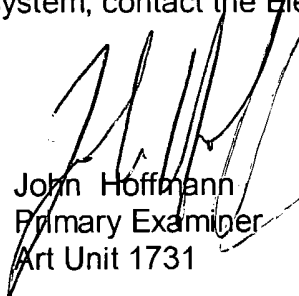
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

8-3-04

jmh